Free Verifications of ENERGY STAR Certification Applications

ENERGY STAR® PortfolioManager®

September 13, 2016

Victoria Kiechel
The Cadmus Group, in support of EPA
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The Cadmus Group, in support of EPA

Learning Objectives

- Gain an understanding of:
  - The value of the ENERGY STAR Certification
  - Building/owner eligibility requirements for ENERGY STAR Certification
  - The value of the ENERGY STAR free verification program
  - The role of the Licensed Professional in applying for ENERGY STAR Certification
  - How to register for participation in the pro bono verification program

www.energystar.gov/probono

products
4.8 billion

commercial buildings
24,000

homes
1.5 million

industrial plants
130

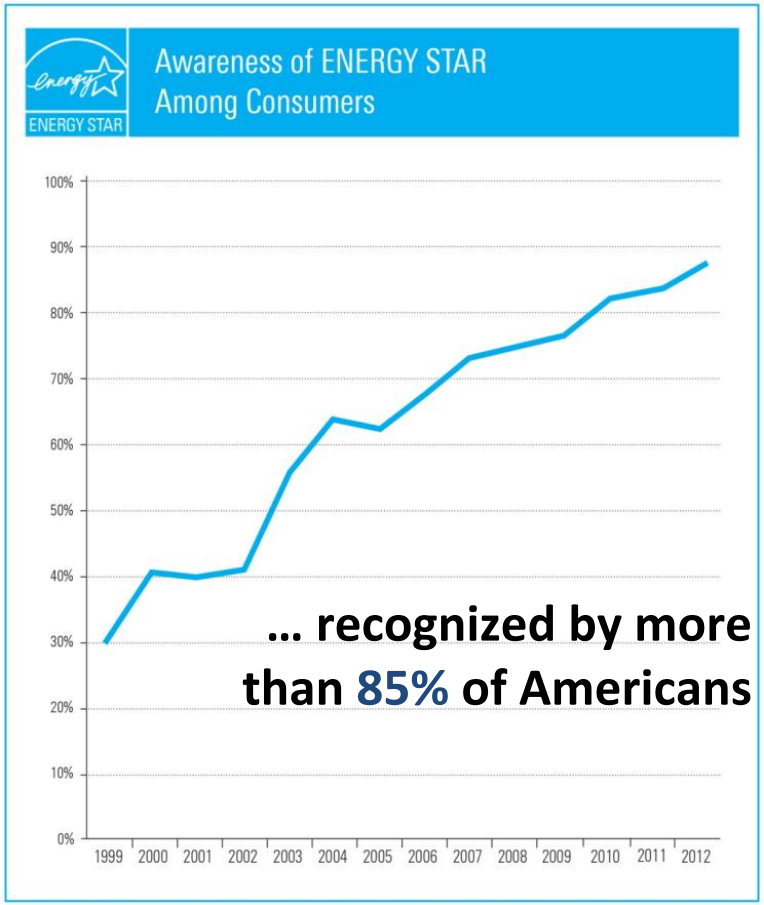
ENERGY STAR
Commercial Buildings Program

- Offers a strategic approach to energy management
- Enables building owners, managers, and tenants to save money & protect the environment
- Provides organizations with measurable information on energy savings and greenhouse gas emissions reductions from commercial buildings
- Builds on strong ENERGY STAR brand recognition
- Benchmarking is the first step
- **ENERGY STAR on a building (ENERGY STAR certification) = superior energy performance**

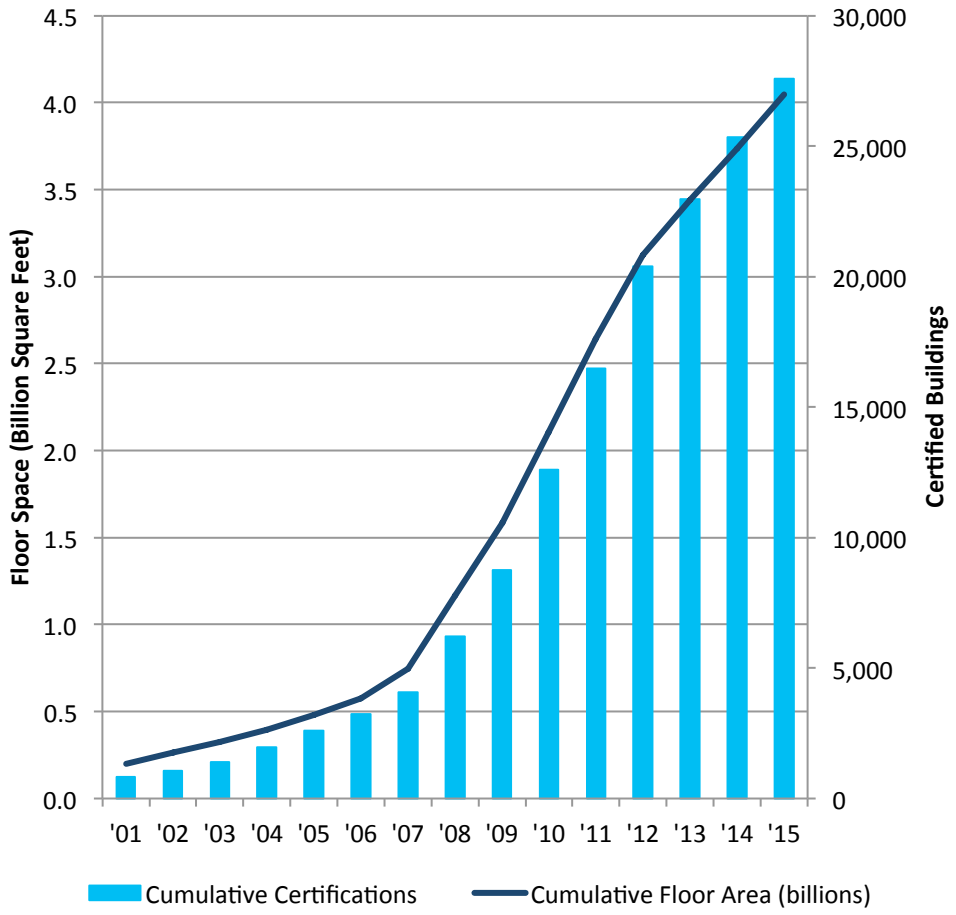
The Value of ENERGY STAR Certification

It's a little label, but it's **well recognized** and carries three big messages:

1. Cost effective
2. Protects the environment
3. No trade-offs



ENERGY STAR defines superior energy performance



More than **28,500** ENERGY STAR certified properties

To Be Eligible for Certification

To be eligible for certification, a property must:

- Be located in the United States, U.S. territories, or owned by the U.S. government
- Meet the definition of one of the eligible property types
- Receive an ENERGY STAR score of 75 or higher that reflects
  - the **whole property** (or campus for Hospitals, Hotels, K-12 Schools or Senior Care)
  - all energy use on the entire property for 12 months
  - accurate property use details (with vacancy accounted for in Offices and Medical Offices when appropriate)

Overview of the ENERGY STAR Application and Certification Process

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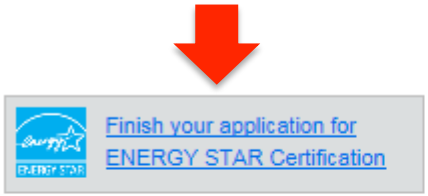
ENERGY STAR®
PortfolioManager®

2



3

Signature & Stamp of Verifying Professional

I _____ (Name) verify that the above information is true and correct to the best of my knowledge.

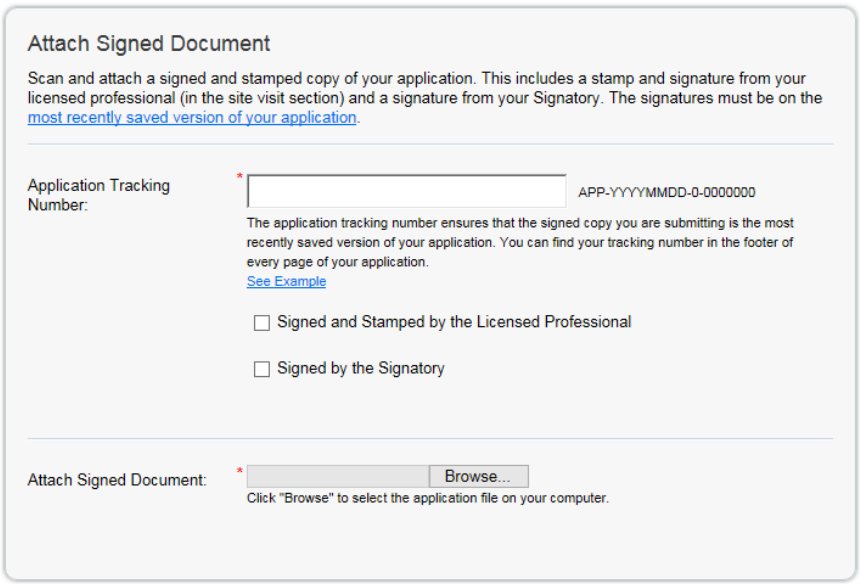
Signature: _____ Date: _____

Licensed Professional

John Smith
4 Privet Dr
Arlington, VA 22201
703-111-1234
john_smith@energyinspectors.com

Professional Engineer Stamp (if applicable)

4



EPA

The U.S. EPA's Free ENERGY STAR Verification Program

So why don't ALL certification-eligible buildings certify?

- The only external cost to owners is for the services of an LP to conduct a walkthrough
  - Fees usually between $900 and $2,000, depending on building type and complexity
- Building owners are sometimes unable to afford the walkthrough

The ENERGY STAR Free Verification Is Born!

- A joint initiative between
  - AIA's Continuing Education program
  - U.S. EPA's ENERGY STAR program
  - Public Architecture's 1+ program:
    - ". . . the flagship effort of Public Architecture and a vehicle for change" that institutionalizes pro bono service by designers
- Goals:
  - Break the barriers to ENERGY STAR certification
  - Lower carbon emissions in the built environment
  - Give professionals licensure credit and recognition for service given at no cost

How Professionals Benefit

- AIA is offering participating architects **up to 8 Health, Safety, Welfare (HSW) continuing education units (CEUs)** – representing a major proportion of their annual requirement for continuing professional licensure.
- EPA is working to confirm that **engineers in the 36 states that allow self-reporting of CE hours can claim CE credit** for free ENERGY STAR verification
- Professionals can further use this opportunity to:
  - **Build relationships and name recognition** with building owners and managers.
  - **Receive national recognition** through a listing on the ENERGY STAR Licensed Professional Directory.
  - **Earn eligibility for ENERGY STAR SPP partnership** for your company.
  - **Help an organization** of your choice by performing a visible public service.
  - **Help reduce carbon emissions** in buildings.
  - **Build a marketable skill** verifying ENERGY STAR certification applications.

How To Earn Your CEUs

- View a no-cost, on-demand ENERGY STAR recorded training provided by EPA about how to verify an application. Register at https://esbuildings.webex.com. Complete a short quiz.
- **Follow instructions on our fact sheet or web page (www.energystar.gov/probono)** to find a project and validate one or more ENERGY STAR applications as a public service. It's **easy and cost-free**!
- Secure a letter **(template available at website above)** from the building owner confirming the pro bono work.

How to Register and Use Public Architecture's 1+ Tool

Let's step through the registration and "matchmaking" tool:

https://theoneplus.org/find_project/7

PRO BONO VERIFICATION
Community United Methodist Church, Virginia Beach VA

The simple choice for energy efficiency.

ENERGY STAR

April 2016

Pro Bono ENERGY STAR Verification

Community United Methodist Church in Virginia Beach, VA serves more than 1,600 members. The church completed a significant building expansion in 2002 to sustain its growing congregation. In 2015, the church decided to demonstrate its stewardship of creation by committing to earn EPA's ENERGY STAR. Worship facilities that earn the ENERGY STAR use 35% less energy and emit 35% less greenhouse gas emissions, on average, than typical facilities.

Keith Madigan, a professional engineer and principal of K.C. Madigan & Associates, LLC, was contacted after church leaders learned that he personally conducts pro bono verifications as a public service to schools and houses of worship.

Mr. Madigan traveled from Maryland where his firm is located to conduct the site visit and verify the application. In 2015, the Church successfully earned ENERGY STAR certification with an impressive ENERGY STAR score of 95, putting the facility in the top 5% in the nation.

Mr. Madigan provided similar services to three K-12 schools in Stafford County, Virginia: Widewater Elementary School with a score of 86, Falmouth Elementary School with a score of 81, and Anthony Burns Elementary School with a score of 79.

Pro Bono Services Get a Boost

The U. S. Environmental Protection Agency (EPA) has partnered with the American Institute of Architects (AIA) and Public Architecture to match ENERGY STAR-eligible buildings owned or operated by public sector and non-profit organizations with architects and engineers willing to verify applications on a cost-free, "pro bono" basis.

Many architects and engineers offer free verification services to schools, hospitals, houses of worship, and other facilities. These professionals offer pro bono services because they believe that it encourages energy efficiency in U.S. buildings and offers triple bottom line advantages for everyone involved:

- **Economic:** Reduced utility bills for building owners and marketable experience for architects and engineers.
- **Environmental:** A cleaner, healthier environment through reduced greenhouse gas emissions.

- **Social:** Recognition for owners and occupants committed to energy efficiency, improved indoor environmental quality for occupants, and new connections between building owners and architects and engineers.

To learn more about EPA's pro bono ENERGY STAR verification program, visit www.energystar.gov/probono.

Public Architecture

Use Public Architecture's 1+ free matching tool to request a pro bono ENERGY STAR verification of your non-profit building. You will be notified after architects or engineers express interest in your request. Or you can search for firms directly. www.publicarchitecture.org

American Institute of Architects (AIA)

AIA offers Registered Architects 8 Health, Safety, and Welfare (HSW) continuing education units (CEU) for conducting one or more pro bono ENERGY STAR verifications. www.aia.org

Case Study One: Community United Methodist Church, Virginia Beach, VA by K.C. Madigan & Associates, LLC

PRO BONO VERIFICATION
Drew Charter Junior/Senior Academy, Atlanta GA

The simple choice for energy efficiency.

April 2016

Pro Bono ENERGY STAR Verification

Drew Charter School Junior/Senior Academy in Atlanta, GA comprises 205,800 square feet of space and serves more than 700 six - twelve grade students. In early 2016, the school sought pro bono verification services to achieve LEED Gold and ENERGY STAR certification. Servidyne answered their call and assigned Meghan McNulty, EIT, LEED AP O+M to the project.

Ms. McNulty scheduled a site visit with the school's Facility Manager Sri Nagendran for a tour and application review. While on site, they discovered an unusual control issue with the ventilation system that, when adjusted, greatly enhanced the indoor air quality in the school building. The school had built the facility to LEED standards, but the onsite walkthrough - as is required for ENERGY STAR certification - identified an opportunity to take full advantage of the advanced ventilation system features that had been installed, to ensure a healthy indoor environment for school children and staff. With support from Servidyne, the school successfully earned the ENERGY STAR in 2016, sustaining better performance in indoor air quality as well as in energy efficiency.

Servidyne reports that its other pro bono verifications have typically required only about five hours of time; this particular review took about 10 hours. But it was well worth the extra time to be able to provide the unanticipated additional ongoing benefit to the school.

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Case Study Two: Drew Charter Junior/ Senior Academy, Atlanta, GA from Servidyne

Steps in the ENERGY STAR Verification Process

The Owner-Generated Application

Generate Your Application for Signatures

Portfolio Manager generates a downloadable PDF of your application. Your application must be signed and stamped by a qualified Licensed Professional (ie. Professional Engineer (PE) or Registered Architect (RA)) before it is submitted to EPA.

Download Current Application for Professional Signatures

Tracking #	Date Generated
APP-20130530-0-5000009 (Current Version)	2013-05-30 15:28:15.0

Generate New Application for Download

OMB No. 2060-0347

ENERGY STAR® Data Verification Checklist for Certification

LEARN MORE AT energystar.gov

76

ENERGY STAR ® Score[1]

Test Office

Primary Function: Office
Gross Floor Area (ft²): 374,000
Built: 2004

For Year Ending: 07/31/2013[2]
Date Application Becomes Ineligible: 11/28/2013

1. Score is on a scale of 1-100. Application must be submitted to EPA within 4 months of the Period Ending date. Award is not final until approval is received from EPA.
2. The ENERGY STAR Score is based on total source energy. A score of 75 is the minimum to be eligible for the ENERGY STAR.

Please use the *Licensed Professional's Guide to the ENERGY STAR ® for Commercial Buildings* for reference in completing this checklist (http://www.energystar.gov/ia/business/evaluate_performance/pm_lp_guide.pdf).

Property & Contact Information

Property Address	Property Owner	Primary Contact
Test Office 2100 Washington St Dallas, Texas 75201	Sample Organization 201 Lincoln Anywhere, DC 20005 (____)____-_____	Billy Jean 402 Jefferson Monticello, VA 29012 123-456-7890 billyjean@email.com

Property ID: 3656563

1. Review of Whole Property Characteristics

Basic Property Information

1) **Property Name:** Test Office ☐ Yes ☐ No

Is this the official name to be displayed in the Registry of ENERGY STAR Certified Buildings and Plants?

If "No", please specify: _____

EPA

Role of the Licensed Professional

- Perform a site visit to evaluate indoor environmental quality as well as the completeness and correctness of application documents
  - Accurate whole property energy use data
  - Correctly reported Property Use Details
  - Adequate indoor environmental conditions
- Ensure the integrity of ENERGY STAR Certification
- May be an employee of the company/organization applying for the ENERGY STAR, or a 3rd party. In any case, they must carry out an unbiased assessment of the application.

Responsibilities of an LP

1. Follow the guidance in *The Licensed Professional's Guide: Understanding the Roles and Requirements for Verifying Commercial Building Applications for ENERGY STAR Certification*
2. Conduct site visit
   - Verify all data inputs
   - Assess indoor environmental quality
3. Request that the applicant address any insufficiencies or errors in Portfolio Manager
4. Check re-generated documents, as needed
5. Sign and stamp the Application

Verifying Application Contents

1. **Review of Basic Property Information**
   - Name
   - Primary Function
   - Location
   - Gross Floor Area
   - Annual Occupancy
   - Number of Buildings

2. **Review of Property Use Details**
   - Weekly Operating Hours
   - Vacant Space
   - Data Center Inputs
   - Retail
   - Parking

3. **Review of Energy Consumption** (Meters, Fuel Types, Data)

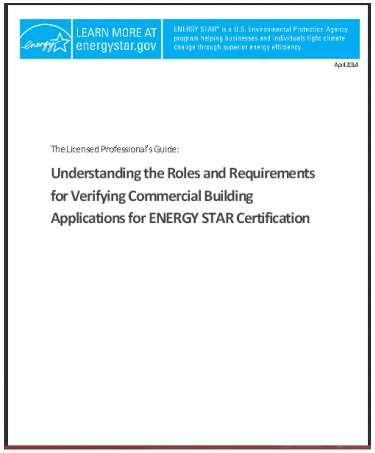
Verify Indoor Environmental Standards

- Testing protocols outlined in LP Guide
- Overall purpose is to ensure comfort and safety of building has not been compromised to lower energy bills
- No specific number of measurements required – may depend on configuration of building.
- Discretion involved in determining testing plan, which is why we require expertise of professional engineer or architect

Indoor Environmental Standards		
1) Ventilation for Acceptable Indoor Air Quality Does this property meet the ASHRAE Standard 62 for ventilation for acceptable indoor air quality?	☐ Yes	☐ No
2) Acceptable Thermal Environmental Conditions Does this property meet the ASHRAE Standard 55 for thermal comfort?	☐ Yes	☐ No
3) Adequate Illumination Does this property adhere to the IESNA Lighting Handbook for lighting quality?	☐ Yes	☐ No

Site Visit

- A site visit must be performed by the LP to verify all of the information on the application and ensure that the property has acceptable indoor air quality, illumination, and thermal comfort
  - Someone working under the direction of the LP may conduct the site visit
- It is the responsibility of the LP to verify that the information in the application is accurate to the best of their knowledge, based on the site visit, best professional judgment, and in line with the LP Guide and Portfolio Manager definitions



Tools of the Trade

- Handheld CO2 reader
- Temperature gauge (if not included in CO2 reader)
- Light meter

Site Visit Results

Site Visit Performed

Performed on: 06/05/2013

Performed by: Smith, John — Add a Contact

EnergyStar
30 Main Street
Arlington, VA 22502

Site Visit Results

Based on the site visit, were any issues identified with your application?

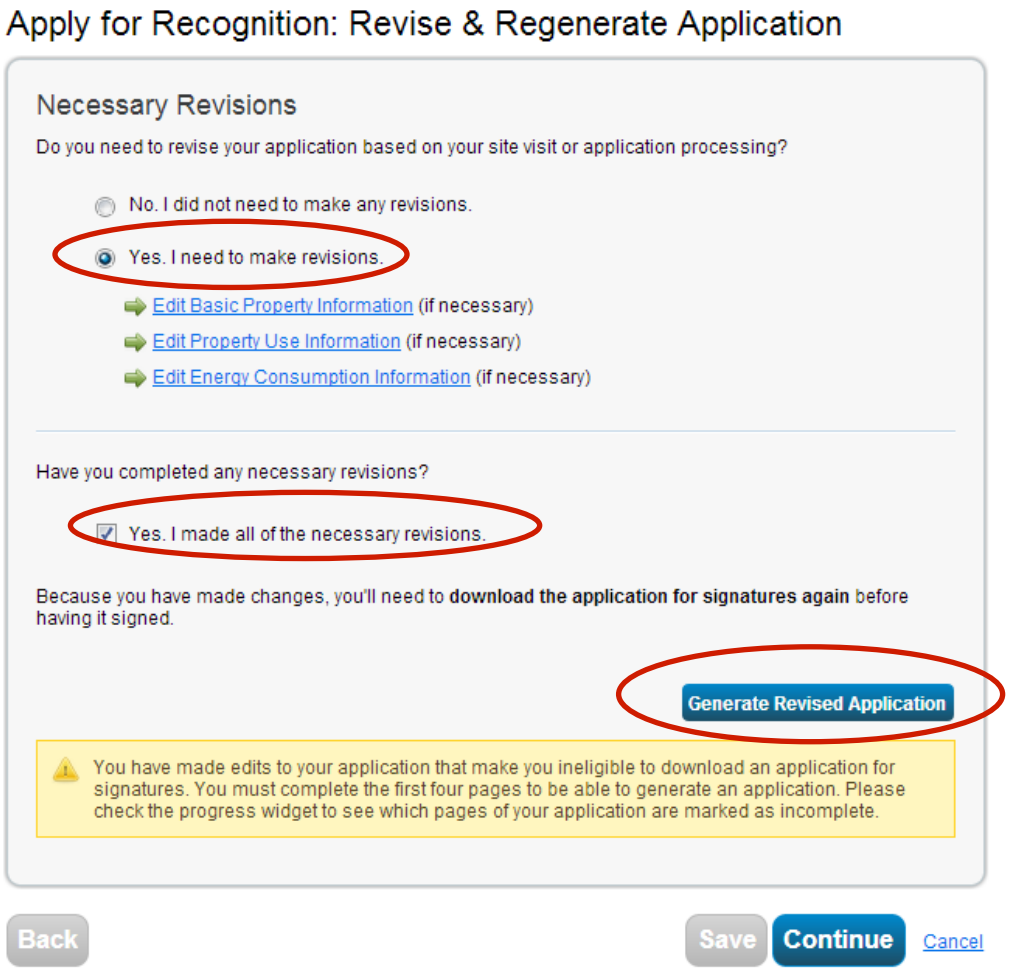
○ Yes ◉ No

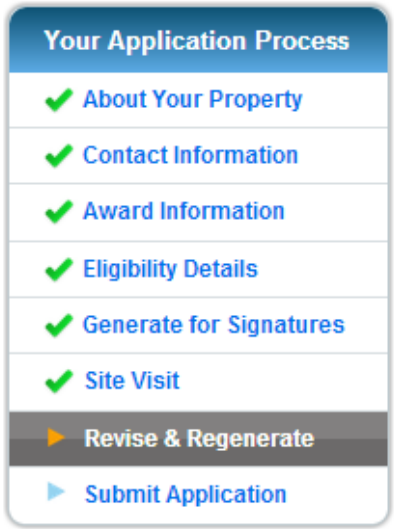
Back | Save | Continue | Cancel

Your Application Process

- ✔ About Your Property
- ✔ Contact Information
- ✔ Award Information
- ✔ Eligibility Details
- ✔ Generate for Signatures
- ▶ Site Visit
- Revise & Regenerate
- Submit Application

If Changes Are Needed, Revise & Regenerate



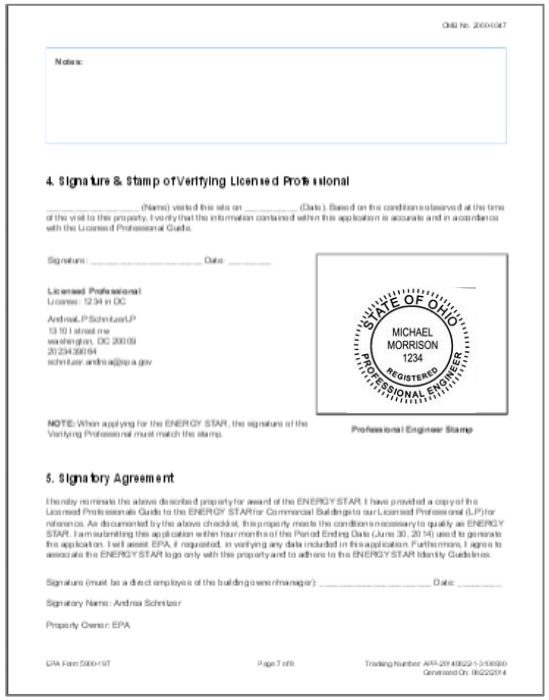


About Revisions

The information about your property that is included with your application must be revised within your property in order for your application to be accepted. The links provided make it easy for you to make those edits and return directly to this application. Alternatively, you could navigate to your property overview page to make the necessary revisions on your own.

Stamp & Sign Application

- The LP must apply his/her professional seal/stamp and sign the application to confirm that the information in the application is accurate
- Application must be signed by a building owner or manager (the “Signatory”) or their representative
- Upload and submit via Portfolio Manager
- To receive HSW credits, please upload a letter from the building owner attesting to your pro bono service



OMB No. 2060-0347

Notes:

4. Signature & Stamp of Verifying Licensed Professional

_____ (Name) visited the site on _____ (Date). Based on the conditions observed at the time of the visit to this property, I verify that the information contained within this application is accurate and in accordance with the Licensed Professional Guide.

Signature: _____ Date: _____

Licensed Professional
License: 1234 in DC

Andrea L P Schnitzer LP
1310 I street nw
washington, DC 20009
2023439084
schnitzer.andrea@epa.gov

STATE OF OHIO
MICHAEL
MORRISON
1234
REGISTERED
PROFESSIONAL ENGINEER

Professional Engineer Stamp

NOTE: When applying for the ENERGY STAR, the signature of the Verifying Professional must match the stamp.

5. Signatory Agreement

I hereby nominate the above described property for award of the ENERGY STAR. I have provided a copy of the Licensed Professionals Guide to the ENERGY STAR for Commercial Buildings to our Licensed Professional (LP) for reference. As documented by the above checklist, this property meets the conditions necessary to qualify as ENERGY STAR. I am submitting this application within four months of the Period Ending Date (June 30, 2014) used to generate this application. I will assist EPA, if requested, in verifying any data included in this application. Furthermore, I agree to associate the ENERGY STAR logo only with this property and to adhere to the ENERGY STAR Identity Guidelines.

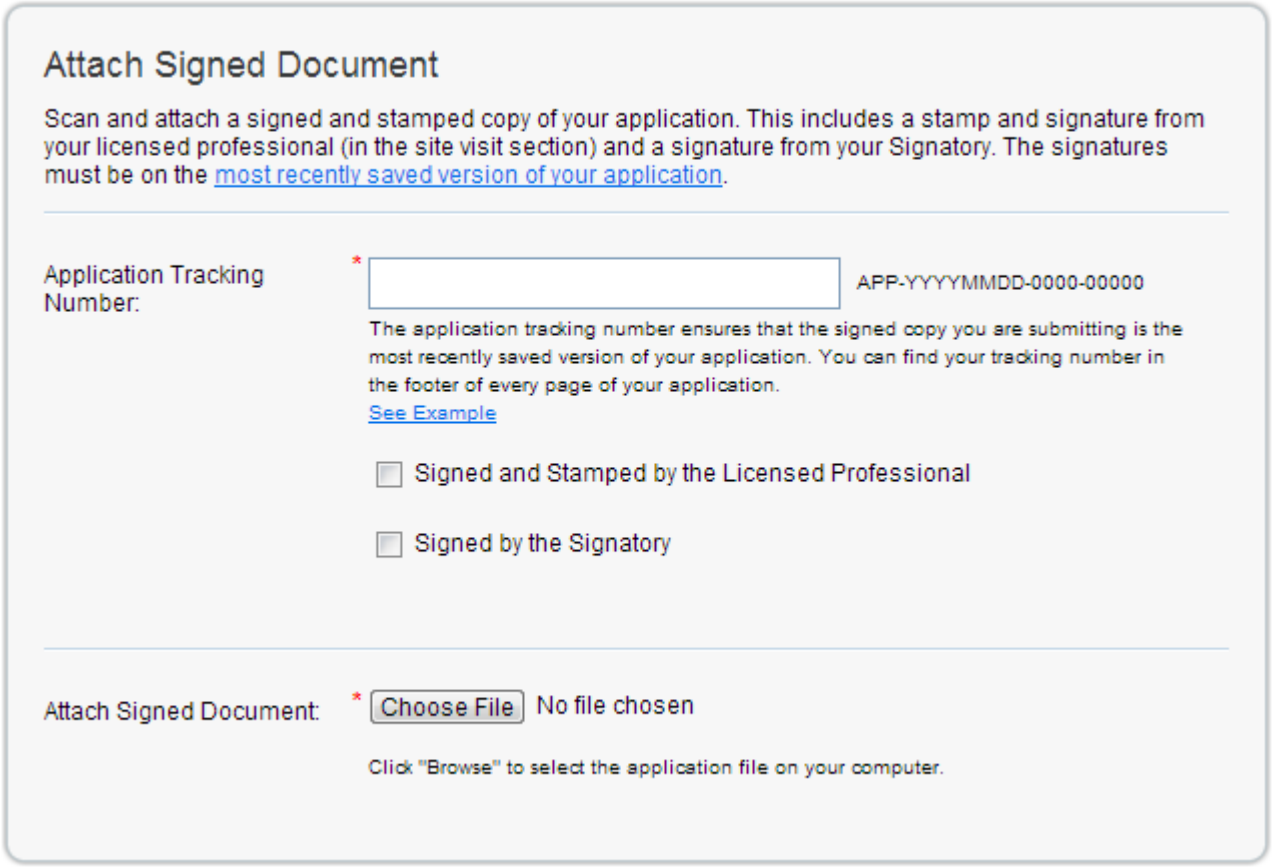
Signature (must be a direct employee of the building owner/manager): _____ Date: _____

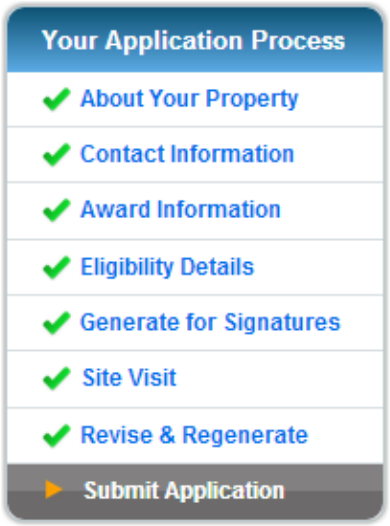
Signatory Name: Andrea Schnitzer

Property Owner: EPA

EPA Form 5900-197 Page 7 of 9 Tracking Number: APP-20140822-1-316550 Generated On: 8/22/2014

Apply for Recognition: Submit Application





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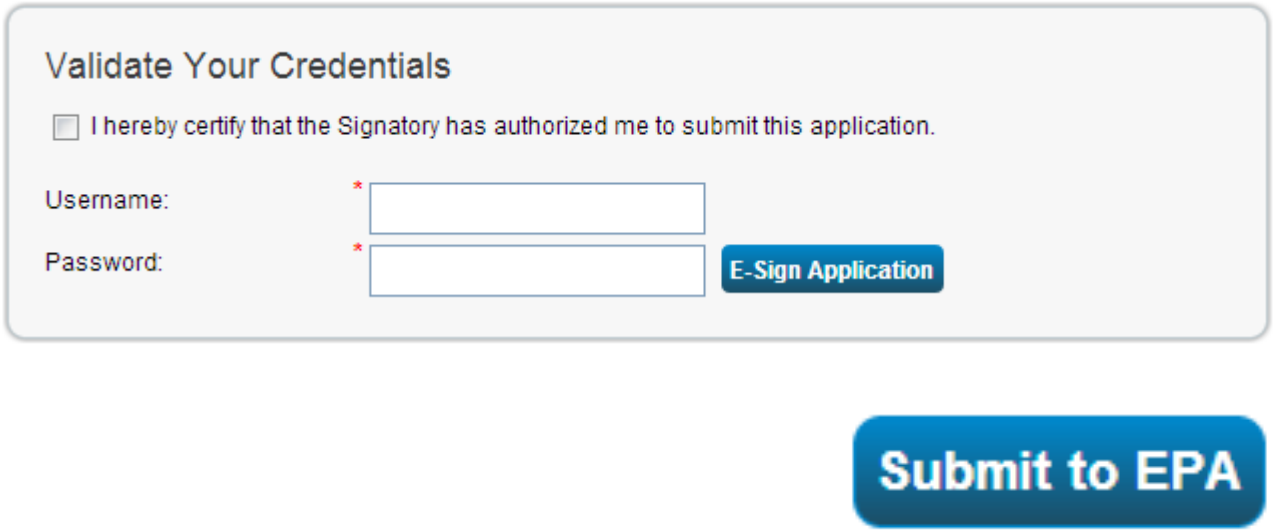

ENERGY STAR Certification Timeframes

- It typically takes about 2 weeks to review and process an application, barring significant issues
- **AIA will award HSW hours regardless of whether the application is approved**
- If the application is approved, the applicant should receive a letter of congratulations, certificate, and decals in 2-3 weeks
- The year listed on the ENERGY STAR Certification is based on the calendar year in which the application was approved
- ENERGY STAR certification is good for 12 months
- Offer to recertify the building next year for further HSW credits to apply towards your professional licensure

Recap

- We covered:
  - The **value of the ENERGY STAR** Certification for owners and professionals
  - **Eligibility requirements** for ENERGY STAR Certification
  - The **ENERGY STAR pro bono initiative**
  - **How to register for the initiative**
  - **How to apply** for the ENERGY STAR Certification in Portfolio Manager
  - The role of the **Licensed Professional** in applying for ENERGY STAR Certification

Thank you for your attention!

Questions?

www.energystar.gov/probono